sPHENIX TPC Electronics

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Today

- I didn't mean to hijack today's meeting for TPC electronics… but
- Let's plan on having an actual meeting next week
  - You have to look at my slides to find out when I propose to do that

TPC Electronics

- Takao has thought about developing readout of the TPC and has convened a number of meetings, and this is not meant to subvert that but to bring additional effort to bear on this problem with the goal of having at least a conceptual design that goes all the way from analog signals coming off the chamber to event records ready for reconstruction at RCF
- The immediate urgency is to have a coherent story for the tracking review Sep 7-9
  - That review will focus on the detector design and physics performance
  - For electronics, we can get away with showing a concept and a plan for developing a design

Questions, questions, questions….

- How much ALICE/STAR can we copy?
- Do we trigger the on-detector electronics?
  - PHENIX timing system?
- How do you drive data off the detector?
- Where does the data go?
- Do we try and make it look like PHENIX and buffer data in DCM II's?
- Where does the data get reduced? Clusterizers, zero suppression/ADC processing, time stamps, formatting...
- Show plausible data link speeds throughout the system
- Power, radiation hardness, cooling, cabling, packaging concepts
- Show that one can plausibly record 15 kHz of Au+Au with 90% livetime
  - Multievent buffering or allevent buffering
- Merging data from the rest of the detector's triggers
- Data volume expectations

Let's stand around the whiteboard

- I propose a micro-workfest next Wed-Thu (Aug 3-4)
- I think we should try and keep the presentations to the minimum
- Work in the morning, talk in the afternoon?
- Result should be a block diagram and homework
- SBU, Columbia, BNL (Physics and Instrumentation) explicitly invited, but announce as open to all (announce to tracking-l)
- Post reading material to the tracking-l